

DISTRIBUTION AMPLIFIERS



MANUAL PART NUMBER: 400-0004-004

DA1804NT

1-IN, 4-OUT VIDEO DISTRIBUTION AMPLIFIER USER'S GUIDE

ALTIMEX[®]

SIGNAL
MANAGEMENT
SOLUTIONS[®]

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DISTRIBUTION AMPLIFIERS

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DISTRIBUTION AMPLIFIERS

PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA1804NT** and keep it handy for future reference. These safety instructions are to ensure the long life of your **DA1804NT** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 GENERAL

- Qualified ALTINEX service personnel or its authorized representatives must perform all service.
- Connect the unit to a properly rated supply circuit.

1.2 HANDLING

- Handle the **DA1804NT** carefully. Dropping or jarring can damage internal components.
- For best results, place the **DA1804NT** on a flat, level surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **DA1804NT** in direct sunlight, near heaters, or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Do not pull the cables that are attached to the **DA1804NT**.
- To turn off the main power, be sure to remove the cable from the power outlet. The power outlet socket should be installed as near to the equipment as possible and should be easily accessible.

1.4 CLEANING

- Clean only the connector area with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit. Do not clean or touch any component or PCB.

1.5 FCC NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

DISTRIBUTION AMPLIFIERS

ABOUT YOUR DA1804NT

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DA1804NT

1-In, 4-Out Video Distribution Amplifier

The **DA1804NT** is a 1-In, 4-Out Distribution Amplifier designed to allow the connection of a single video source to as many as four display or recording devices.

The **DA1804NT** can pass NTSC, PAL, and SECAM composite video signals. It can also pass high-resolution monochrome computer video, such as grayscale signals used in medical imaging. The **DA1804NT** can handle video signals with levels up to 1.5 Vp-p.

State-of-the-art technology gives the **DA1804NT** a bandwidth of 350 MHz with a very flat frequency response up to 200MHz. It also offers a differential gain of 0.15% and a differential phase of 0.15 degrees.

The **DA1804NT** Distribution Amplifier has a pre-set gain of 0 dB; each output is completely independent and can withstand shorts to ground. Extremely rugged and compact, the **DA1804NT** fits easily into tight spots. Using high-quality 75 ohm coaxial cable, it can drive an NTSC signal 400 ft (122 m) or more.

TECHNICAL SPECIFICATIONS

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Specifications are subject to change.

See www.altinex.com for up-to-date information.

FEATURES/DESCRIPTION	DA1804NT
GENERAL	
Inputs	BNC female (1)
Outputs	BNC female (4)
Compatibility	NTSC, PAL, SECAM, High Resolution Monochrome Computer Video

Table 1. **DA1804NT** General

MECHANICAL	DA1804NT
Material	Gray 0.1" Al
Top Label	Lexan
Height (inches)	1.0 in (25 mm)
Width (inches)	4.6 in (117 mm)
Depth (inches)	3.5 in (89 mm)
Weight (pounds)	0.4 lb (0.18 kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. **DA1804NT** Mechanical

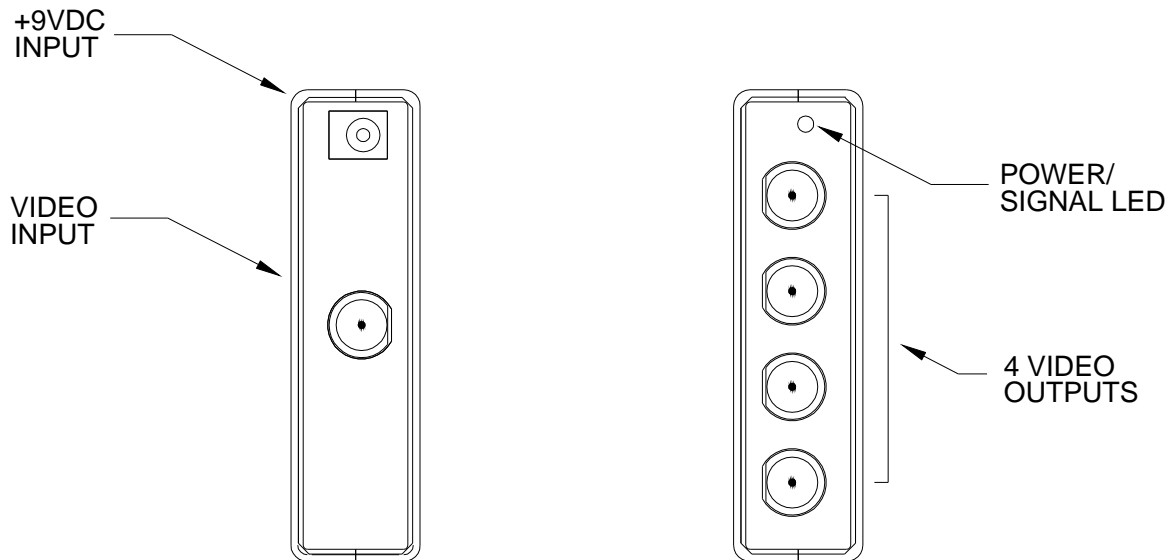
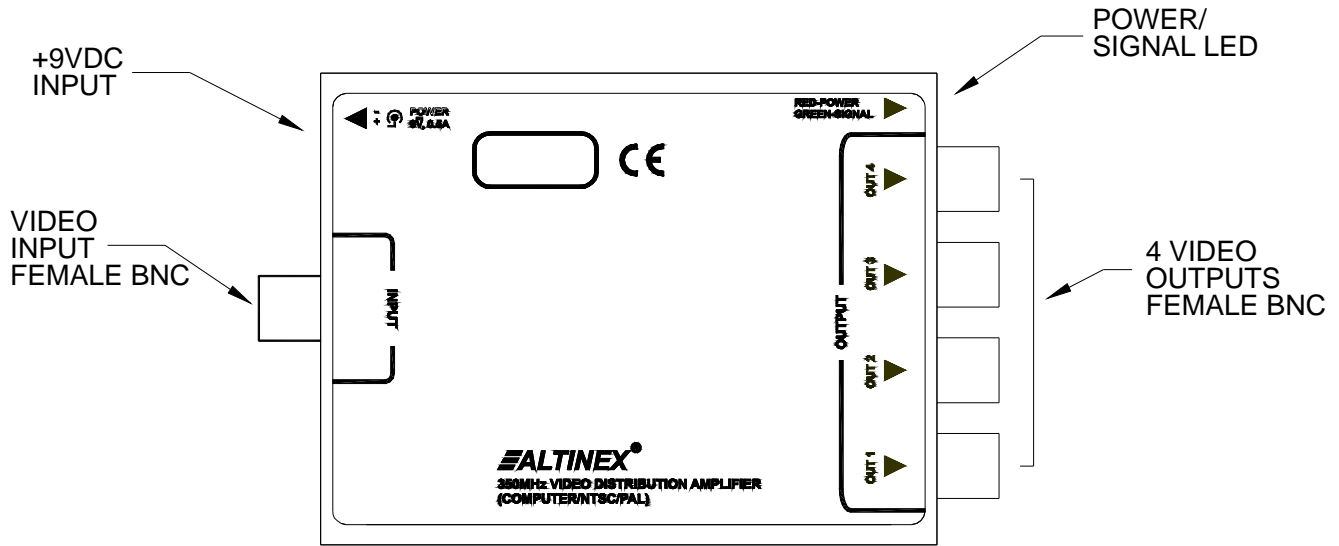
ELECTRICAL	DA1804NT
Input Video Signal	
Analog Signal	1.5 Vp-p max.
Impedance	75 ohm
Output Video Signal	
Analog Signal	0 dB +/- 0.5 dB
Impedance	75 ohm
Frequency Compatibility	
Video Bandwidth	350 MHz @ -3 dB
Coupling	
DC	
Power	
External Adapter (included)	9 VDC 500 mA
Power Consumption	0.4 W max.

Table 3. **DA1804NT** Electrical

DISTRIBUTION AMPLIFIERS

PRODUCT DESCRIPTION

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DISTRIBUTION AMPLIFIERS

APPLICATION DIAGRAMS

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DIAGRAM 1: TYPICAL SETUP

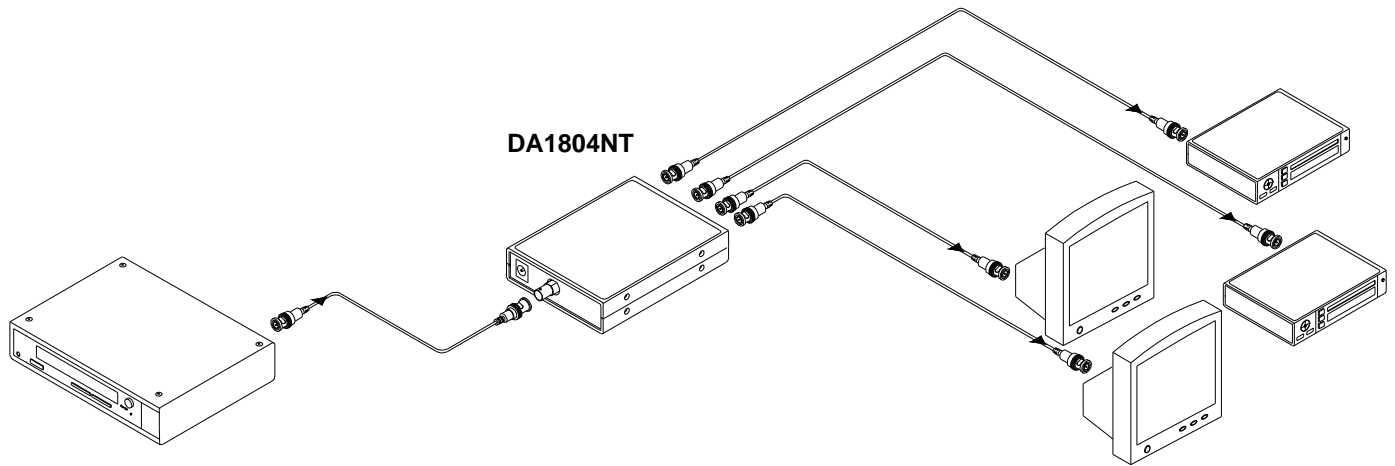
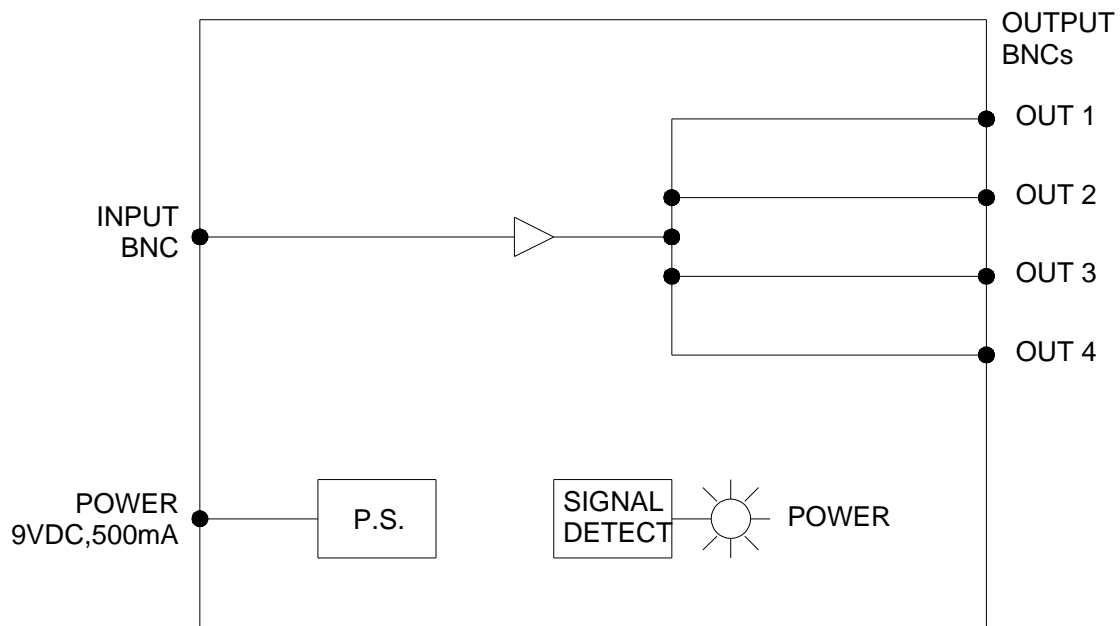


DIAGRAM 2: INTERNAL VIEW



INSTALLING YOUR DA1804NT 6

- Step 1.** Connect one end of the power adapter cable to the **DA1804NT** and the other to the power outlet. The Power/Signal Present LED on the side panel should be on and red indicating the unit is operational.
- Step 2.** Connect a coaxial cable from the video source (VCR, Document Camera, etc.) to the input connector of the **DA1804NT**.
- If the video source providing a video image, the Power/Signal Present LED on the **DA1804NT** should turn from red to green indicating a valid signal is present.
- Step 3.** Connect the output connectors of the **DA1804NT** to the display devices (monitors or projectors) using coaxial cables.
- Step 4.** The images on the outputs of the **DA1804NT** should be equivalent to the input source signal.
- Step 5.** Installation is complete. There are no further connections or settings required.

OPERATION 7

The **DA1804NT** requires no adjustments for performance. Once set up, the **DA1804NT** will work trouble-free without user intervention as long as cables are attached properly and other technical specifications are followed.

TROUBLESHOOTING GUIDE 8

We have carefully tested and found no problems in the supplied **DA1804NT**; however, we would like to offer suggestions for the following:

8.1 POWER LED IS NOT ON

The Power/Signal Present LED should be on and red when power is applied with no input signal.

Cause 1: There is no AC power.

Solution: Only use the external adapter supplied with the **DA1804NT**. Verify the adapter is plugged into a working AC outlet and that the outlet has power.

Cause 2: The adapter is not plugged into the DA1804NT.

Solution: Verify the DC power plug coming from the AC adapter is plugged all the way into the **DA1804NT**.

Cause 3: The FPI100HR has a problem.

Solution: If there is AC power to the adapter and the LED still does not turn on, the **DA1804NT** or the power adapter may require service. Please call ALTINEX at (714) 990-2300.

8.2 LED IS NOT GREEN

The Power/Signal Present LED should be on and red when power is applied, but then turn green when receiving a video signal.

Cause 1: There is no power.

Solution: If the LED is on and red indicating power is present, reconnect the computer's video output. If the LED is still not green, see Cause 2.

Cause 2: There is no sync signal.

Solution: Verify the computer output is operating correctly by connecting it directly to the local monitor. If the display is good, call ALTINEX at (714) 990-2300.

8.3 NO REMOTE IMAGE

Cause 1: The source has a problem.

Solution: Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2: Cable connections are incorrect.

Solution: Make sure that cables are connected properly. Also, make sure that the continuity and wiring are good. If there is still no image, call ALTINEX at (714) 990-2300.

8.4 REMOTE IMAGE QUALITY IS POOR

Cause 1: The source has a problem.

Solution: Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2 Poor signal transmission.

Solution: Check the cables for continuity and make sure that connections are wired properly to verify that there is good signal transmission. We recommend ALTINEX-made cables for best results. If the image is still not correct, call ALTINEX at (714) 990-2300.

ALTINEX POLICIES

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9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

9.2 CONTACT INFORMATION

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